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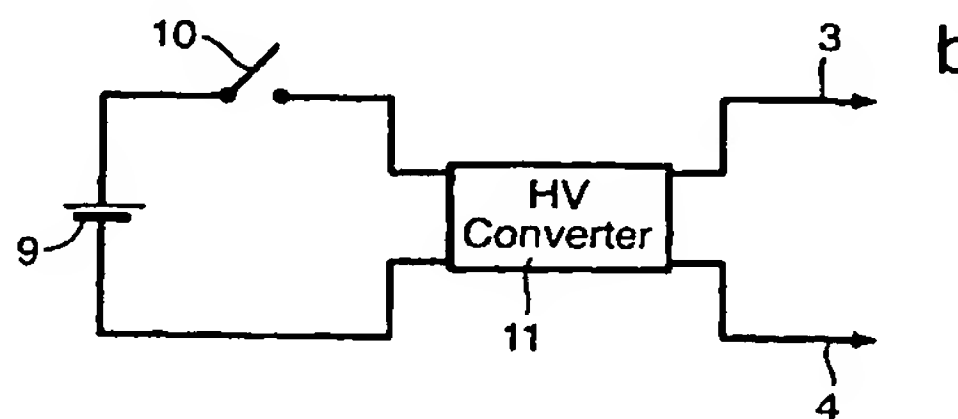
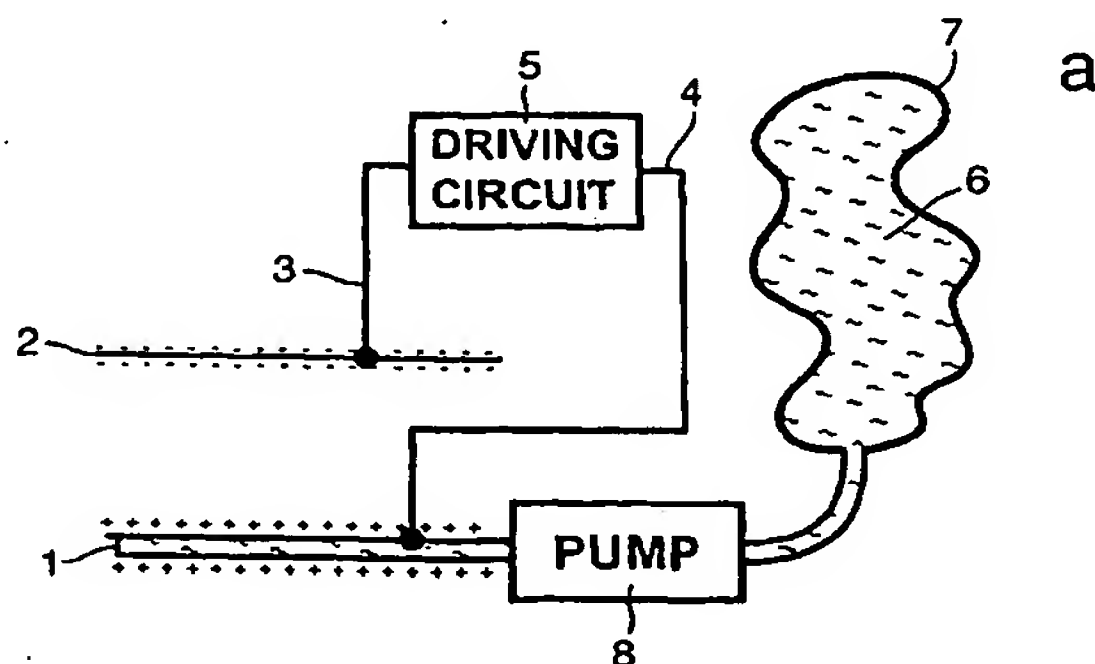
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **SPRAY ELECTRODE**



(57) Abstract: An electrostatic spraying device comprises a capillary spray electrode (1) having a spraying end, a reference electrode (2), and a reservoir (6) in fluid communication with the spray electrode (1). In use, the electrodes are connected across a generator (5) in order to establish an electric field between the electrodes and cause fluid in the reservoir to be sprayed from the spray electrode (1). The spray electrode has a focus that defines a point at which the electric field is focussed on the spraying end.

INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B05B5/025

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B05B G01N H01J H01M C25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/149313 A1 (IMANISHI YASUO ET AL) 17 October 2002 (2002-10-17) paragraph '0037! - paragraph '0040! paragraph '0045! paragraph '0075! figures 1,2,12	1,2,4, 8-13
X	EP 0 853 980 A (PROCTER & GAMBLE) 22 July 1998 (1998-07-22) column 9, line 30 - line 46 column 10, line 19 - line 42; figures	1,2,8-13
A		3-7
X,P	US 2004/011954 A1 (PARK MELVIN A) 22 January 2004 (2004-01-22)	1,2,4,8, 12,13
A,P	paragraph '0074!; figures 11A-C	14,15
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *8* document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 486 198 A (ICI PLC) 20 May 1992 (1992-05-20) column 1, line 46 - column 2, line 2 column 9, line 17 - line 24; figures -----	14, 15
A	US 5 572 023 A (CAPRIOLI RICHARD M) 5 November 1996 (1996-11-05) column 5, line 29 - line 40 column 6, line 37, paragraph 56 -----	14, 15
X	US 5 935 331 A (MATSUDA NAOKO ET AL) 10 August 1999 (1999-08-10) column 19, line 1 - line 11; figure 15 -----	16, 17, 20-23
A		18, 19
X	US 5 511 726 A (GREENSPAN BERNARD J ET AL) 30 April 1996 (1996-04-30) column 6, line 10 - line 13; figure 1 -----	16, 18-21
X	US 2002/158196 A1 (BERGGREN WILLIAM TRAVIS ET AL) 31 October 2002 (2002-10-31) the whole document -----	16, 17, 20-23
X	US 6 318 640 B1 (COFFEE RONALD ALAN) 20 November 2001 (2001-11-20) the whole document -----	16, 17, 20-23

INTERNATIONAL SEARCH REPORT

International application No.
T/GB2004/001431

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2004 /001431

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13

A spraying device with improved capillary spray electrode

2. claims: 14, 15

A method of manufacturing an electrode

3. claims: 16-23

A spraying device provided with cleaning means.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Interq Application No
PCT/GB2004/001431

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Information on patent family members

Inter I Application No
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